

REMARKS

The Office Action has been reviewed carefully and claims 1, 8-10, 15, 16 and 18 have been amended in a sincere effort to place the application in condition for allowance. Claims 1, 8 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid fulvic acid. Claims 1, 8-10 and 15 have been amended to recite the transitional phrase “consisting essentially of.” Claims 9 and 10 have been amended to depend from claim 15. Claims 16 and 18 have been amended to conform the claims to conventional U.S. practice. Method claims 20-27 have been added. Composition claim 28 has been added. Support for the language contained in claim 28 is found at page 4, lines 14-17, of the specification. No new matter has been added. In view of the foregoing amendments and following remarks, Applicant believes that all the rejections are in condition for withdrawal and that all pending claims 1, 4-10 and 15-28 are in condition for allowance.

The specification is objected to because the abstract is not provided on a separate sheet. A separate sheet containing the abstract is provided herewith.

35 U.S.C. 112 Rejection

Claims 9, 10, 17 and 19 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for incorrect dependency. Claims 9 and 10 have been amended to depend from claim 15. The rejection of claims 9, 10, 17 and 19, therefore, is obviated.

Summary of Telephonic Interview

The undersigned representative of the Applicant wishes to thank Examiners Khan and Douyon for the courtesies extended in the telephonic interview held June 20, 2007. A summary of the interview follows.

We first discussed whether the composition claims, if rewritten as method claims, would be novel and nonobvious in view of the cited prior art. The Examiners acknowledged that the rejections based on the cited prior art would be withdrawn and the claims would be allowed (absent any finding of new prior art) if the claims were rewritten as method claims.

In addition, the Examiners stated that if the prior art does not disclose both humic acid and fulvic acid, then amending the composition claims to recite both humic acid and fulvic acid should result in allowance of the claims. If the prior art does disclose both

acids, then the Examiners suggested amending the composition claims to recite “consisting of” instead of “comprising of.”

Because the status of the case is after a final Office Action, the Examiners indicated that no amendment to the claims will be entered. Therefore, Applicant files concurrently herewith a Request for Continued Examination (RCE) to allow entry of amended claims 1, 8-10, 15, 16 and 18 and new claims 20-28.

Applicant’s Invention

The present invention is directed to a colorant composition and methods of use thereof suitable for coloring foliage, and in particular, turf grass. The composition consists essentially of humic acid, fulvic acid and a water soluble dye, which when added to a foliage colorant has the surprising and unexpected effect of causing the color of the composition to be intensified and/or modified. The composition may be diluted with water to an aqueous form so that it may be sprayed onto the foliage.

Claims 1, 4-7, 10, 15 and 16 - 35 U.S.C. § 102 Rejection

Claims 1, 4-7, 10, 15 and 16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kosaka. The Examiner states that Kosaka teaches inks for ball-point pens comprising humic acid, water, surfactant and a water soluble-dye. The Examiner acknowledges that Kosaka does not teach a foliage colorant use of the composition.

Claims 1 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. Kosaka neither teaches nor suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, Kosaka neither teaches nor suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 4-7, 10 and 16 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 4-7, 10 and 16, which depend either directly or indirectly from claim 15, are neither taught nor suggested by

Kosaka. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 4-7, 10, 15 and 16.

Claims 1, 4-8, 10, 15 and 16 - 35 U.S.C. § 102 Rejection

Claims 1, 4-8, 10, 15 and 16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hamamoto. The Examiner states that Hamamoto teaches inks for ball-point pens comprising 0.01-3 wt% humic acid, water and 1-15 wt% water-soluble dye such as acid blue dyes 1, 9 and 90. The Examiner acknowledges that Hamamoto does not teach a foliage colorant use of the composition.

Claims 1, 8 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. Hamamoto neither teaches nor suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, Hamamoto neither teaches nor suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 4-7, 10 and 16 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1, 8 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 4-7, 10 and 16, which depend either directly or indirectly from claim 15, are neither taught nor suggested by Hamamoto. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 4-8, 10, 15 and 16.

Claims 1 and 15 - 35 U.S.C. § 102 Rejection

Claims 1 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Dainichiseika Color & Chemical Manufacturing (JP 05065425; hereinafter “JP ‘425”). The Examiner states that JP ‘425 teaches red azo colorant compositions comprising 0.1-5 wt% humic acid, water and soluble azo dye. The Examiner acknowledges that JP ‘425 does not teach a foliage colorant use of the composition.

Claims 1 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new

claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. JP '425 neither teaches nor suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, JP '425 neither teaches nor suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

Applicant respectfully submits, therefore, that claims 1 and 15 as amended, new claim 28 and new method claims 20-27 are neither taught nor suggested by JP '425. Applicant therefore respectfully requests withdrawal of the rejection of claims 1 and 15.

Claims 1, 4-10, 15, 17 and 19 - 35 U.S.C. § 103 Rejection

Claims 1, 4-10, 15, 17 and 19 are rejected under 35 U.S.C. § 103(a) as being obvious over Riedel et al. The Examiner states that Riedel et al. teach compositions comprising 0.001-30% humic acid antioxidants to protect skin against oxidative stress, urea and iron sources for moisturizing purposes, 0.1-30% dyes such as acid green 1 and acid blue 1 or 62 to provide decorative cosmetics, surfactants for dispersing and stabilization of cosmetics and water. The Examiner acknowledges that Riedel et al. do not teach all the claimed components in a single composition or a foliage colorant use of the composition.

Claims 1, 8 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. Riedel et al. neither teaches nor suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, Riedel et al. neither teaches nor suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 4-7, 9, 10, 17 and 19 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1, 8 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 4-7, 9, 10, 17 and 19, which depend either directly or indirectly from claim 15, are neither taught nor suggested

by Riedel et al. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 4-10, 15, 17 and 19.

Claims 1, 4-8, 10, 15 and 17 - 35 U.S.C. § 103 Rejection

Claims 1, 4-8, 10, 15 and 17 are rejected under 35 U.S.C. § 103(a) as being obvious over Heidenfelder et al. The Examiner states that Heidenfelder et al. teach compositions comprising 0.001-30% humic acid antioxidants, iron compounds, 0.1-30% dyes such as acid green 1 and acid blue 1 or 62, surfactants and water. The Examiner acknowledges that Heidenfelder et al. do not teach all the claimed components in a single composition or a foliage colorant use of the composition.

Claims 1, 8 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. Heidenfelder et al. neither teaches nor suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, Heidenfelder et al. neither teaches nor suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 4-7, 10 and 17 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1, 8 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 4-7, 10 and 17, which depend either directly or indirectly from claim 15, are neither taught nor suggested by Heidenfelder et al. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 4-8, 10, 15 and 17.

Claims 1, 4-8, 10, 15 and 16 - 35 U.S.C. § 103 Rejection

Claims 1, 4-8, 10, 15 and 16 are rejected under 35 U.S.C. § 103(a) as being obvious over Osada in view of Kosaka. The Examiner states that Osada teaches ball-point pen inks comprising water, surfactants and colorants such as acid blue 1, 9, 62 or acid green. Osada does not teach humic acid but the Examiner states that Kosaka teaches adding humic acid to ball point pen inks.

Claims 1, 8 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. Neither Osada nor Kosaka, either alone or in combination, teaches or suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, neither Osada nor Kosaka, either alone or in combination, teaches or suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 4-7, 10 and 16 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1, 8 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 4-7, 10 and 16, which depend either directly or indirectly from claim 15, are neither taught nor suggested by Osada and Kosaka, either alone or in combination. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 4-8, 10, 15 and 16.

Claims 1, 4-10, 15, 16 and 19 - 35 U.S.C. § 103 Rejection

Claims 1, 4-10, 15, 16 and 19 are rejected under 35 U.S.C. § 103(a) as being obvious over Inoue et al. in view of Kosaka. The Examiner states that Inoue et al. teach ball-point pens inks comprising water, surfactants, urea and colorants such as acid blue 9. Inoue et al. do not teach humic acid but the Examiner states that Kosaka teaches adding humic acid to ball point pen inks.

Claims 1, 8 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid. Neither Inoue et al. nor Kosaka, either alone or in combination, teaches or suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, neither Inoue et al. nor Kosaka, either alone or in combination, teaches or suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 4-7, 9, 10, 16 and 19 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1, 8 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 4-7, 9, 10, 16 and 19, which depend either directly or indirectly from claim 15, are neither taught nor suggested by Inoue et al. and Kosaka, either alone or in combination. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 4-10, 15, 16 and 19.

Claims 9, 10 and 19 - 35 U.S.C. § 103 Rejection

Claims 9, 10 and 19 are rejected under 35 U.S.C. § 103(a) as being obvious over Hamamoto in view of Inoue et al. Hamamoto is relied upon by the Examiner as set forth above. The Examiner acknowledges that Hamamoto does not teach compositions comprising surfactants and fertilizers. The Examiner states that Inoue et al. teach inks comprising water, surfactants, urea and colorants such as acid blue 9.

The features of dependent claims 9, 10 and 19 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Claim 9 and 10 depend directly from claim 15 and claim 19 depends indirectly from claim 15. Claim 15 has been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. Neither Hamamoto nor Inoue et al., either alone or in combination, teaches or suggests a colorant composition consisting essentially of both humic acid and fulvic acid. Applicant respectfully submits, therefore, that claims 9, 10 and 19, which depend either directly or indirectly from claim 15, are neither taught nor suggested by Hamamoto and Inoue et al., either alone or in combination. Applicant therefore respectfully requests withdrawal of the rejection of claims 9, 10 and 19.

Claims 1, 9 and 15-19 - 35 U.S.C. § 103 Rejection

Claims 1, 9 and 15-19 are rejected under 35 U.S.C. § 103(a) as being obvious over Drahos et al. in view of Hawkins et al. The Examiner states that Drahos et al. teach foliage sprays comprising humic or fulvic acids, urea, iron EDTA and water. Drahos et al. do not teach dyes but the Examiner states that Hawkins et al. teach adding water-soluble dyes to a spray composition for imparting a characteristic color.

Claims 1 and 15 have been amended to recite that the foliage colorant composition consists essentially of both humic acid and fulvic acid. In addition, new

claim 28 has been added that also recites a foliage colorant composition consisting essentially of both humic acid and fulvic acid.

Drahos et al. is directed to a biofungicide which may include a biosupplement. At column 3, lines 16-25, Drahos et al. define “biosupplement” to include a long list of twelve naturally-occurring materials, in which humic acid and fulvic acid are just two. For example, the ten other materials disclosed in the list are sea plant extracts, animal manures, processed sewage sludge, bone, feathers, hair, fish meal, paper processing by-products and compost material.

Claims 1 and 15 as amended, and new composition claim 28, now recite the transitional phrase “consisting essentially of.” As the Examiner knows, this transitional phrase limits the scope of the claims to the recited compounds in the claims and to those compounds that do not materially affect the basic and novel characteristics of the composition. Applicant submits that the list of materials disclosed in Drahos et al. would definitely affect the basic and novel characteristics of the foliage colorant composition of the claimed invention. Applicant submits, therefore, that neither Drahos et al. nor Hawkins et al., either alone or in combination, teaches or suggests a colorant composition consisting essentially of both humic acid and fulvic acid. With respect to new method claims 20-27, neither Drahos et al. nor Hawkins et al., either alone or in combination, teaches or suggests a method of coloring foliage comprising applying a foliage colorant composition comprised of both humic acid and fulvic acid, as acknowledged by the Examiner in the telephone interview.

The features of dependent claims 9 and 16-19 are not asserted as independently establishing patentability apart from the claim or claims from which they depend. Applicant respectfully submits, therefore, that claims 1 and 15 as amended, new composition claim 28, new method claims 20-27 and claims 9 and 16-19, which depend either directly or indirectly from claim 15, are neither taught nor suggested by Drahos et al. and Hawkins et al., either alone or in combination. Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 9 and 15-19.

In view of the foregoing amendments and remarks, it is respectfully submitted that all pending claims 1, 4-10 and 15-28 in the present application comply with the requirements of Section 112 and are patentable over the cited prior art. Accordingly, reconsideration

and withdrawal of the rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,



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